Macroeconomic Policy for Emerging markets

Lessons from Thailand

Routledge: 2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Routledge: 711 Third Avenue, New York, NY 10017

Chapter 10

China's Business Cycle and impacts on Thailand

1. Introduction

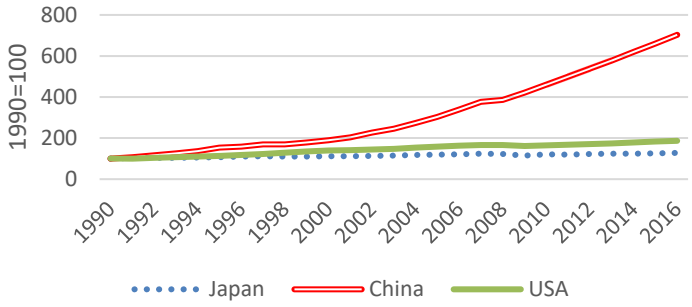
In this chapter, we examine how acceleration and deceleration of the Chinese economy influence the Thai economy. If China's rebalancing policy means increasing domestic consumption and reducing investment expenditure, the Thai economy would be adversely affected by China's new normal growth if imports from China slow down. There are three major channels through which the Chinese economy affect the Thai economy: The international trade volume, and the exchange rate, and price transmission mechanism channel. We will explore the sensitivity of Thailand exports and imports concerning China's business cycle. Both commodity and services exports are equally important. Thailand's tourism industry depends heavily on Chinese tourists, which are expected to exceed 12 million people by the year 2020. The exchange rate between the baht and Renminbi is also essential for Chinese tourists in choosing their holidays. Exports and imports elasticities will be estimated to understand how Thailand's trade sector responds to price and exchange rate changes. We will compare and contrast the trade elasticities among significant trade partners: China, Japan, USA, and ASEAN countries.

There is also a question whether there is a business cycle synchronization between Thailand, China, and other ASEAN countries. If so, there would be a ripple effect of China's slowdown and China's recovery through the indirect effects of China's imports from ASEAN regions. The synchronization would go beyond output cycles to price levels. Thus, we would examine the exchange rate policy strategy to make the best out of the growing China factor.

2. China Rising

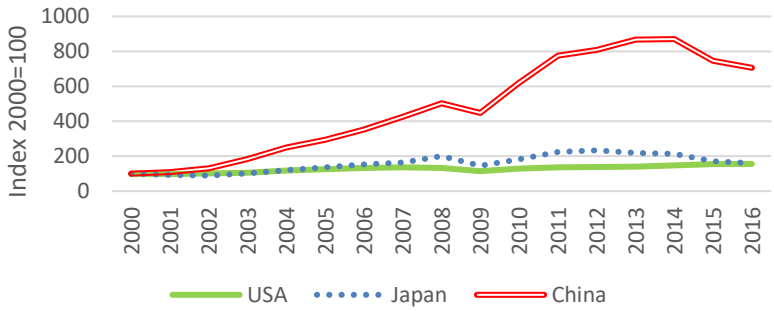
It is evident that China's real GDP has increased rapidly after embracing the market economy. From 1990 to 2016, the economy had expanded about seven-fold (Figure 10.1). Output growth in Japan and USA paled in comparison with China. China has become a new locomotive growth engine for the world.

Figure 10.1 China Rising
Index of Real GDP
Source: Federal Reserve Bank



If the year 2000 is used as a benchmark, China's rising influence on the world trade can be seen in Figure 10.2. While the US and Japan remain significant traders in the world, China has increased more rapidly and dominated the roles of the two countries. In 2009, the impact of the Global Financial Crisis can be observed by the shortfalls of imports from these three giant economies.

Figure 10.2 Real Values of Total Imports from China, Japan, and USA
Source: Federal Reserve Bank



Because of China's V-shaped recovery after the GFC, China's world imported rebounded sharply after 2009. From 2015, the deceleration of China's growth resulted in the sharp decline of imports from the rest of the world, including Thailand.

For these locomotive growth engine countries, their income elasticities of the demand for imports are huge (Table 10.1). More than the USA, China, and Japan's imports respond dramatically to changes in their output growth. Consequently, growth swings in the three economies cause gyrating export growth to the rest of the world. Geographical diversification would not help reducing export instability unless China can decouple from the other two economies. Decoupling can occur if one of these economies effectively apply the macroeconomic policy to dissociate from the other three, as it took place one after the GFC when China successfully employed monetary and fiscal expansionary policy right after the GFC broke out in 2009. As a result, Asian economies were able to avoid a long duration of the economic recession.

Table 10.1 Import Elasticities of the three largest world importers

	China	Japan	USA
Real GDP	4.1	4.26	2.59
REER	-2.28	-0.03	0.20
Import Price	7.32	5.14	0.348

Note: Estimated coefficients obtained from Fully Modified OLS, based on annual data from 2000 to 2016. All estimated coefficients are statistically significant, except the coefficients of Real Effective Exchange Rate (REER) for Japan and USA.
Source of data: Federal Reserve Bank, Federal Reserve Economic Data (FRED)

The loss of China's competitiveness is shown by the appreciation of the real effective exchange rate, which weighs down on China's exports. When China's exports decline, its imports also fall. This is why we observe that the estimated coefficient of the REER in China's imports is negative 2.28. For Japan and USA's import function, the estimated coefficients of the REER are not statistically significant. It should be noted that when import prices increase in China and Japan, the import values also increase. Unlike the case of USA, import price elasticities of import value function are much higher than the output elasticity. It can be explained by the fact that the two economies fundamentally rely on imported raw materials and intermediate inputs from the rest of the world. Import values in the US do not increase as fast as the increase in the price level because the US rely less on imported raw materials and they are less dependent on international trade.

Exports-led growth policy of China has been characterized by an artificially weak exchange rate and subsidized credit by the public-own banking system. China has welcome FDI inflows to increase the strength of its industrial development which has contributed to enormous capacity. When the world can no longer support the growth of China's exports, China' exports collapsed spectacularly (Figure 10.2). Consequently, imports also declined as a result of the collapse in the

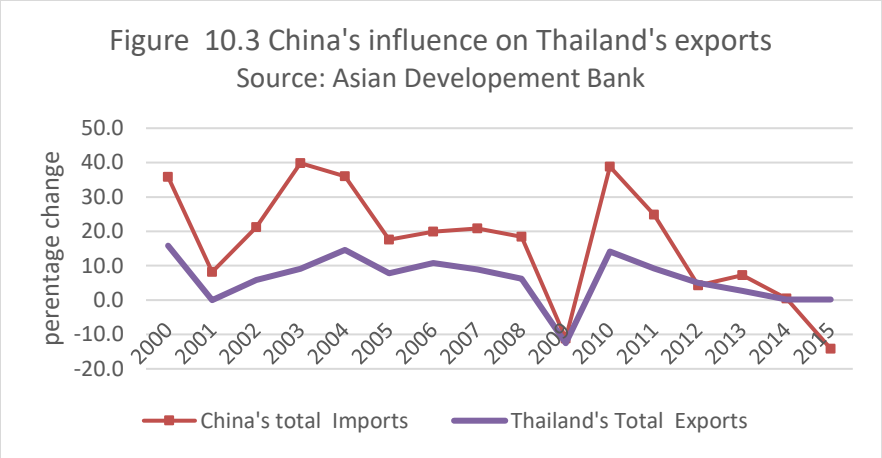
network trade. The GFC caused the sharp export decline in 2009, but the sharp recovery in 2010 was not sustained. Since then both exports and imports started falling rapidly. Overcapacity among exporting firms would eventually lead to non-performing loans of banks which provided subsidized credit to the Chinese export sector.

Due to trade fragmentation, exports and imports are related. To export more, China needs to import intermediate products and raw materials. Hence, China's slowdown implies less importation from the rest of the world. Furthermore, growth deceleration suggests declining growth of imported consumer products and capital goods. The percentage change in China's exports and imports are closely related in such a way that there is a long run relationship between China's exports and imports. China's imports from the rest of the world rise in line with its exports. During China's double-digit growth era, the rest of the world enjoyed the high growth in exports to China. The long-run relationship between exports and imports are also observed in Thailand.

In July 2015, China devalued the renminbi after its exports declined by almost 9 % from the same corresponding period in 2014. The sharp fall was due to strengthening US dollar and rising wages. China's devaluation was an attempt to compensate for the strength of the yuan as it has been pegged with the dollar. This dramatic economic slowdown has led to a substantial export shortfall in Thailand and other ASEAN countries.

3. China's influence on Thailand's economy

Trade is the most critical channel that transmits the impacts of China business cycle to Thailand. As shown in the above figure, Thailand's volatile growth in exports is closely related to China's imports. Although correlation does not necessarily imply causation, we shall examine if Thailand's exports are affected by China's trade volume.



In 2016, Thailand's exports to China represented 11 % of Thailand's total exports. But Figure 3 suggests that Thailand's total exports moved in line with China's total imports. In 2001, the mild recession in the US resulted in a sharp drop in China's imports and Thailand's total exports. In 2009, the Global Financial Crisis (GFC) led to a sharp contraction in China's imports and Thailand's exports. The correlates of the two series in Figure 10.3 can be attributed to a common factor. When China's trade volume experienced upturns and downturns, the peaks and troughs of Thailand's export growth rates coincide with those of China's. The fact of the matter is that China is a massive importer from the rest of the world. When China slows down, the growth rate of the rest of the world also decelerates. The strength and weakness of the Chinese economy exert impact directly on Thailand exports, even indirectly through the rest of the world's imports from Thailand as the rest of the world demands fewer goods from Thailand.

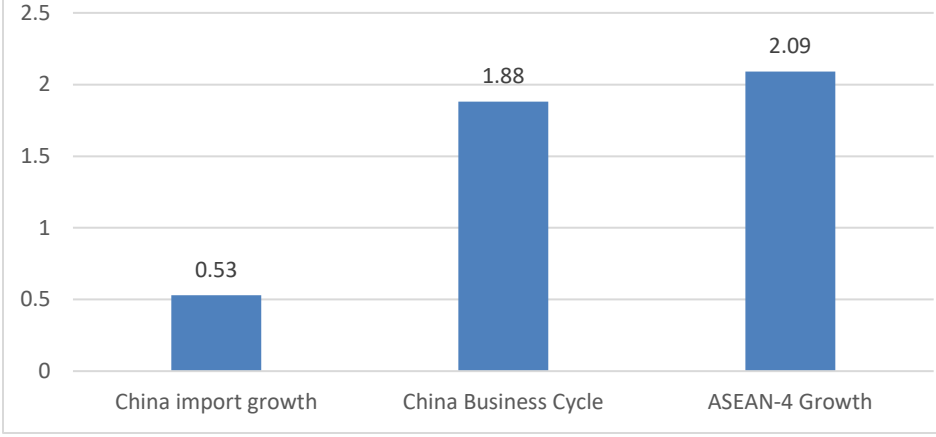
Table 10.2. Thailand's exports to China in 2016

	Share of exports to China in Thailand's total exports, % (1)	China 's share in world imports, % (2)	Revealed Comparative Advantage Index RCA (with respect to China) (3) = (1)/(2)
All products	11	10	1.1
Rubber and articles	30	8	3.8
Electrical machinery and equipment	10	17	0.6
Machinery	8	8	1.0
Plastics and articles	23	11	2.1
Optical, photographic	31	17	1.8
Wood and articles	56	15	3.7
Organic chemicals	32	12	2.7
Vegetables	81	3	27.0
Source: International Trade Center			

Table 10.2 shows Thailand's most essential commodities regarding value exported to China in 2016. Rubber exports to China amounted to 30 % of the value of Thailand's rubber exports. Exports of wood and vegetables represented more than 50 % of Thailand's exports in those categories. Define Reveal Comparative Advantage (RCA) with respect to China as the share of commodity x exported to China over the share of commodity x china's imported from the world. The RCA index is more significant than unity indicates Thailand has a comparative advantage, less than unity comparative disadvantage. Table 2 shows that electrical and mechanical machinery were not produced with comparative advantage, as opposed to other primary commodities which Thailand specialize in production.

To gauge the impact of China business cycle on Thailand's total exports, we define a business cycle as output level which deviates from the long-run GDP path. The long-run path of China's real GDP is obtained by the Hodrick-Prescott Filter. The hypothesis is that Thailand's exports depend on China's total imports (quasi-income effect) and China's business cycle. In other words, Thailand exports level of depends on China's total trade volume as well as the cyclical pattern of China output. The upturns and downturns of the Chinese economic activity give rise to fluctuations in Thailand's total exports. Because of the increasing network trade among ASEAN countries, economic growth of ASEAN economies (excluding Thailand) should exert an impact on the demand for Thailand's exports

Figure 10.4 Impacts on Thailand's export growth
Source: FMOLS Eestmated Coefficients
Annual data: 2003-2016



.

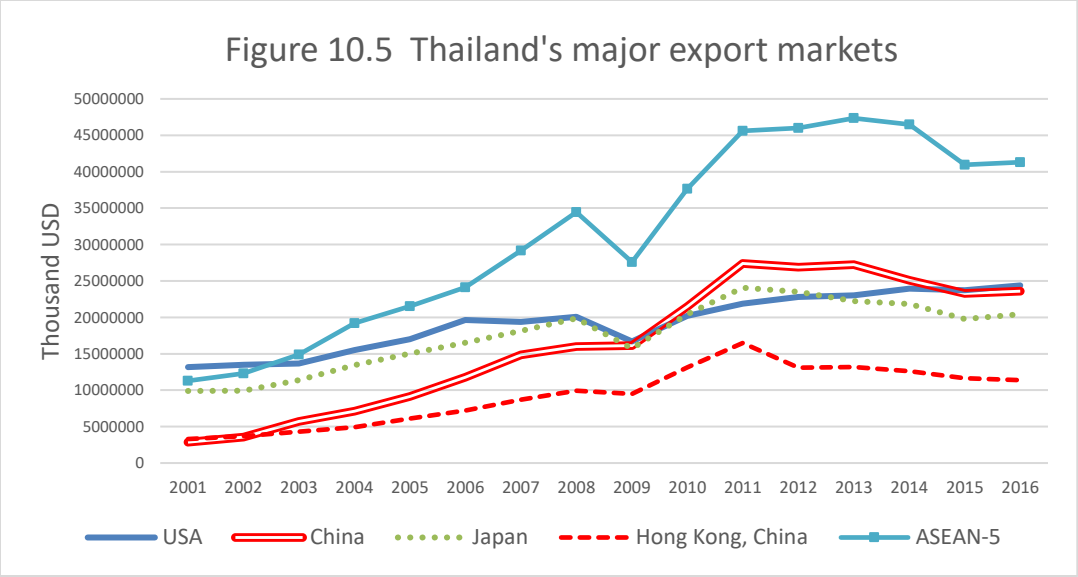
In 2016, imports from Thailand amounted to only 2 % of China's world imports. The estimated coefficients reported in Figure 4 confirms the hypothesis that China's import growth significantly impacts Thailand's exports, which is highly sensitive to China business cycle. Deviation from

China's stable growth path results in a more massive swing on demand for Thailand's exports. Nevertheless, growing reliance on interregional trade within ASEAN economies intensifies the interconnectedness of ASEAN economies through the trade channel. Using the principal component of the GDP growth of four ASEAN countries: Indonesia, Malaysia, Singapore, and the Philippines, we can obtain the aggregate growth of ASEAN-4 countries. The estimated ASEAN-4 elasticity of 2.09 indicates a high sensitivity of Thailand's exports with respect to economic activities in ASEAN -4. The influence of China's economic activity is underestimated by the estimated coefficients reported in Figure 10.4 if we consider that ASEAN-4 countries have massive market exposure to China.

Thailand's three largest export markets are the US, China, and Japan. In 2009, exports in these markets suffered from a shortfall due to the Global Financial Crisis. Thanks to China's fiscal stimuli and monetary expansion in response to the shock, the Chinese economy rebounded after the collapse. Consequently, Thailand's exports to China rebounded substantially, whereas exports to Japan and the US remained stagnant.

Table 10.3. Export Values elasticities: 2003-2016				
	China	USA	Japan	ASEAN
Income ($)	1.73	1.29	2.11	0.60
Export Price ($)	3.82	0.13	1.69	1.19
Source: Author's calculation: Fully Modified Ordinary Least Squares (FMOLS)				

China's elasticity of the demand for imports from Thailand is 1.73, not as high as the corresponding magnitude in Japan and the US. Nevertheless, the elasticity is more significant than unity. On the contrary, the income elasticity in ASEAN countries is less than unity, suggesting that buoyancy in the ASEAN economy would not give rise to an export surge in Thailand. But when we examine the price elasticity for demand for export from China, it shows a very high degree of responsiveness of price changes, whether in terms of export prices or exchange rate movement. The strength of the substitution effect is more than twice that of Japan and ASEAN economies. To sum up, Thailand's exports to the Chinese market are very sensitive to China's economic cycles as well as price and exchange rate movements. Since exchange rates between the baht-dollar and the yuan-dollar are highly correlated, a slight change of between the two can lead to the substantial effect of exports.



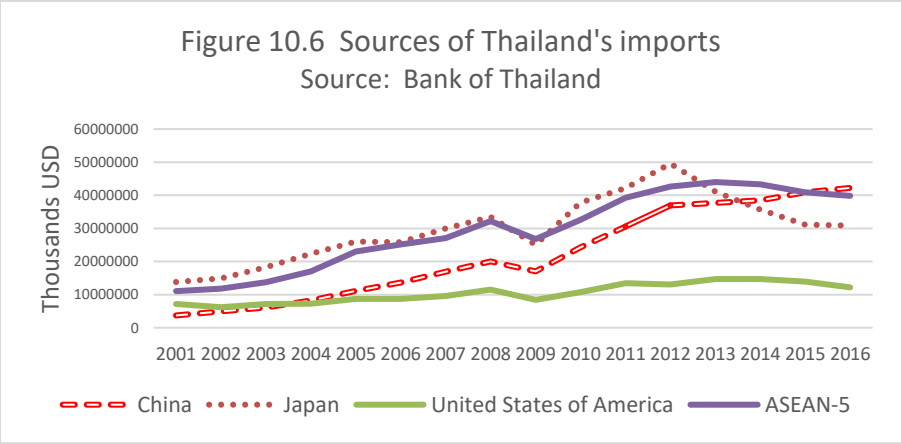
In 2009, Thailand's exports to ASEAN economies slumped due to the GFC. The ASEAN economies experience similar business cycles as exports and investment declined during uncertain times. Note that Thailand's exports to Vietnam and the Philippines remained strong, compared to Malaysia, Singapore, and Indonesia, thanks to their robust economic growth. Thailand's exports to Malaysia, Singapore, and Indonesia experienced a slum after China's slowdown in 2015. These are the three economics which has a high degree of trade exposure and high dependency on China's imports.

Table 10.4 Import value elasticities Three major sources: 2002-2016				
	China	USA	Japan	ASEAN
Thailand GDP ($)	3.91	1.40	0.73	1.63
Import Price ($)	0.65	0.10	1.32	0.85
Source: Author's calculation, Fully Modified Ordinary Least Squares (FMOLS)				

Influence of China on Thailand's imports can be seen in Table 4. The high value of the estimated income elasticity of Thailand's demand for imports from China is the highest among major trading partners, followed by ASEAN trading partners. It turns out that the income elasticity of the demand for imports from Japan is lower than that of the US by almost one-half. The estimated elasticity for import from Japan is 0.73, while the estimated elasticity from other regions is greater than unity. Because of substantial Japanese FDI in Thailand, domestic markets are mainly import-competing from Japanese products. Unlike other areas, locally produced goods do not have stronger substitutability of imports from China, the US, and ASEAN countries. Consequently, we

observe the more significant than unity estimated value of import price elasticity from Japan. Other import price elasticity of import values from China, the US, and ASEAN are less than unity.

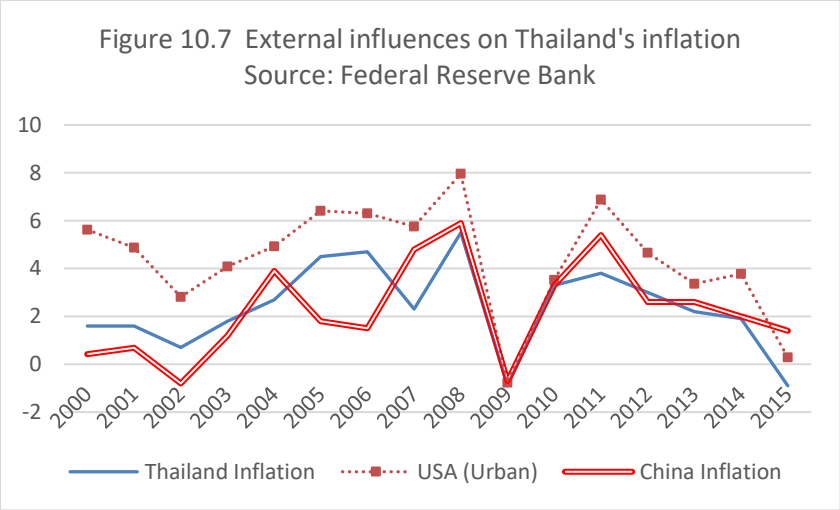
Figure 10.6 shows that Thailand's imports from Japan declined from the peak in 2013 to the level a bit higher than the trough in 2009. The slowdown in the Thai economy is responsible for the decline.



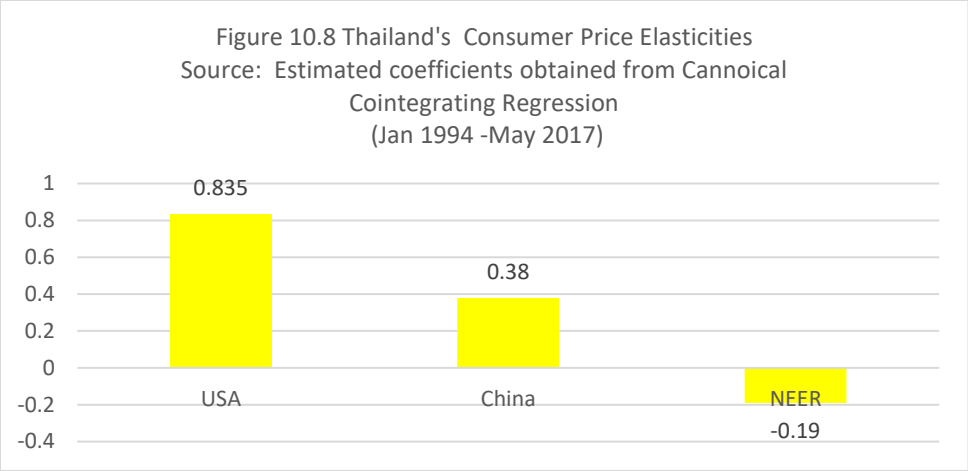
The second channel through which China's economic activity affects Thailand is the price channel. If the baht-renminbi remains somewhat stable, inflation in China can be transmitted to Thailand and other ASEAN countries. Table 10.5 suggests that China dominates Thailand's imports of food items such as vegetables and fruits, clothing, textile, and footwear. These items have a significant share in the consumer price index.

In the long-run, the law of one price predicts that Thailand's inflation converges with China's. If this is the case, the role of monetary policy will be constrained by the price of traded goods, which are dictated by external forces. Nevertheless, monetary policy can still be used to affect non-traded good prices. A more flexible exchange rate policy with less foreign exchange market intervention can enhance the central bank's ability to control inflation.

Table 10.5 Thailand's imports from China in 2016			
	Share in Thailand's imports from China (1)	Share in world exports of China (2)	Revealed Comparative *Disadvantage:* (1)/(2)
All products	22	13	1.7
Electrical machinery	33	24	1.4
Machinery	28	18	1.6
Articles of iron/steel	40	20	2.0
Chemical products	27	8	3.4
Aluminum	26	13	2.0
Fruit and nuts	54	5	10.8
Apparel and clothing	54	33	1.6
Vegetables	39	15	2.6
Footwear	42	35	1.2
Source: International Trade Center			



A significant weight of food prices is put into Thailand's consumer price index. The global food crisis that broke out in 2008 cause a jump in the CPI in Thailand and China. When China and India experienced drought and rice shortage, coupled with export bans in China, rice price increased. The low-interest rate before the GFC also led to speculation in grains. Once the global food crisis was over, the price of rice declined considerably in 2009. Inflation in Thailand and China dropped sharply but accelerated in the following two years before slowing down in line with China's growth deceleration.



Appreciation of the baht can reduce imported inflation; thereby reducing pressure on the domestic price level. Nevertheless, the offsetting impact from exchange rate mechanism is small when compared to inflation transmitted from the US and China. A ten percent increase in inflation in the US and China gives rise to 8.4 % and 3.8 % respectively.

4. ASEAN Business Cycle and China Factor

Fragmentation-based specialization has become an integral part of the economic landscape of East Asia. Athukorala and Hill (2010) point out that dependence on this new form of international specialization is proportionately larger in ASEAN nations than in North America and Europe through the rapid integration of China into regional production networks. This development of regional production networks is a counterpoint to the popular belief that China's global integration would crowd out other countries' opportunities for international specialization.

Eichengreen et al. (2012) analyze the incidence and correlates of growth slowdowns in fast-growing middle-income countries. They found that a larger group of countries is at risk of a growth slowdown, which is less likely in countries where the population has a relatively high level of secondary and tertiary education and where high-technology products account for a relatively large share of exports. Thus, moving up the technology ladder is vital to avoid the middle-income trap.

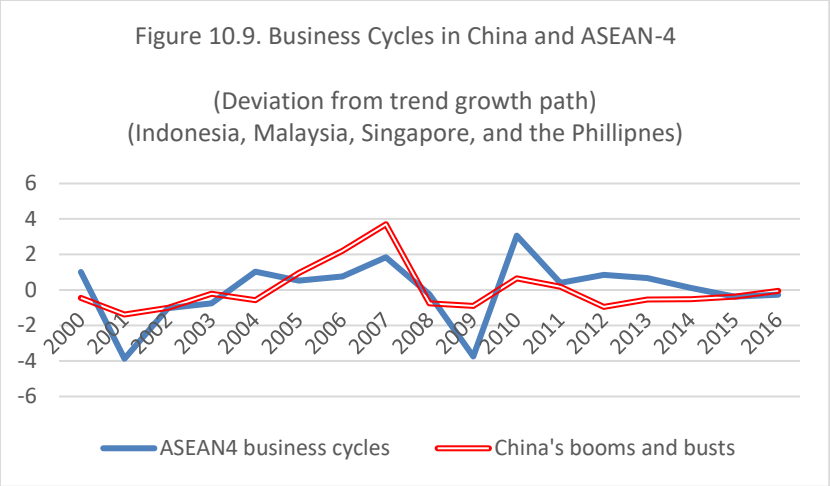
Utilizing data from 26 countries over the period 1981 to 2013, Cashin et al. (2017) found that a one percent permanent negative GDP shock in China could have significant global macroeconomic repercussions, with world growth reducing by 0:23 percentage points in the short-run. Moreover, there would be a surge in global financial market volatility could translate

into a fall in world economic growth of around 0:29 percentage points, but it could also have negative short-run impacts on global equity markets, oil prices and long-term interest rates.

China, the world's second largest economy, has experienced economic growth rate fall from 10 percent in 2010-2011 to 7 percent in 2017. The economic slowdown and the renminbi depreciation would have significant negative consequences on some ASEAN economies. Through vertical integration, Foreign Direct Investment (FDI) has made ASEAN vulnerable to fluctuations in world trade volume. The ASEAN business cycles are synchronized through regional trade linkages. On the financial flows, synchronization of the ASEAN-5 stock market has been well documented. Teng, et al. (2013) report that stock markets in traditional ASEAN countries are well aligned with economic activities in developed economies rather than those in emerging economies. Also, they do not react to external shocks originated in other ASEAN markets. Each stock market in ASEAN-5 responds differently in terms of direction and degree towards changing world economic conditions. In August 2015, the stock market crash in China led to fear of market meltdown. China factor is significant to the rest of the world in real and financial sectors, from commodity prices, exchange rates, to stock prices[i].

Because ASEAN economies have some degree of heterogeneity, some ASEAN countries would suffer from the slowing growth of China more than others. Differences in the level of trade integration, export commodity concentration, export market dependency, would lead to the different impact of China's new normal growth path. Furthermore, the quality of ASEAN institutions differs significantly from authoritarian to democratic regimes.

The quality of institutions can affect the attractiveness of FDI in ASEAN (Masron and Nor, 2013). The heterogeneity among ASEAN implies differences in the effectiveness and efficiency of macroeconomic policy in response to China's economic slowdown. China rising has caused a shift in global trade patterns, with China dominating Western markets at the expense of ASEAN countries (Napoli, 2014). Nevertheless, China's dominance does not appear to have had a significant adverse effect on growth rates for ASEAN GDP, exports, or FDI stocks. While China is crowding ASEAN out of developed markets, increased Chinese demand for ASEAN imports has more than offset this effect. Now the impact of China's slowdown has become more pronounced in export sectors in the USA, Europe, and Japan. Since ASEAN's export sectors have market exposures to those markets, although they do not directly rely on China's imports, eventually they will be adversely affected by the growth slowdown in China.



We use principal component analysis to obtain the combined growth rates of four ASEAN nations: Indonesia, Malaysia, the Philippines, and Singapore. To obtain a proxy for the business cycle, we employ the Hodrick- Prescott filter (HP) to separate cyclical components from the trend paths of China's GDP growth and ASEAN-4's HP growth path. Indeed, China's business cycle is related to growth cycles in the ASEAN-4. Economies.

ASEAN economies experienced similar shocks from the Asian Financial Crisis (AFC) in the period 1997-1998 to the Global Financial Crisis (GFC) in the period 2008-2009. The spectacular falls in output were followed by V-shaped recoveries. The reason behind this co-movement of output can be traced back to similar patterns of exports and investment cycles in ASEAN economies. Athukorala and H. Hill (2010) point out that dependence on fragmentation-based international specialization is proportionately high in ASEAN than in North America and Europe. The rapid integration of China into regional production networks does not crowd out ASEAN members' opportunities for international specialization.

Not only their output growth paths are related, inflation, interest rates, and stock market performance tend to move together in tandem. Since the AFC, the saving-investment gaps in ASEAN economies are widened as the current account deficit in the pre-AFC turned around into surplus.

China's major sources of imports are Japan and the US. Both Malaysia and Thailand are also essential sources of China's imports, ranking among the top 10 countries. To gauge the impact of China's imports on ASEAN economies (Figure 2), we compare the movement of the business cycle in ASEAN economies (right axis) with China's imports (left axis). The ASEAN business cycle is obtained from the first component of principal components of ASEAN's GDP growth rates between 1990 and 2014. There is a striking similarity between upturns and downturns of the two magnitudes. A long run relationship between the two series is confirmed by the Johansen co-integration test. The Granger causality test indicates that the direction runs from ASEAN business

cycle to China's import growth. Booming economic activity in ASEAN can predict the rising demand for imports from China.

On the contrary, there is no evidence of co-integration between ASEAN business cycle and the US's imports. Indeed, ASEAN business cycle is synchronized with Chin's economic activity, i.e., trade and output growth. After the establishment of ASEAN Economic Community (AEC) in 2016, with diversity in population and economic sizes, income levels, and natural resources, it is expected that synchronization of economic activity among ASEAN members would be more intensified through increasing trade intensity within the AEC and with China.

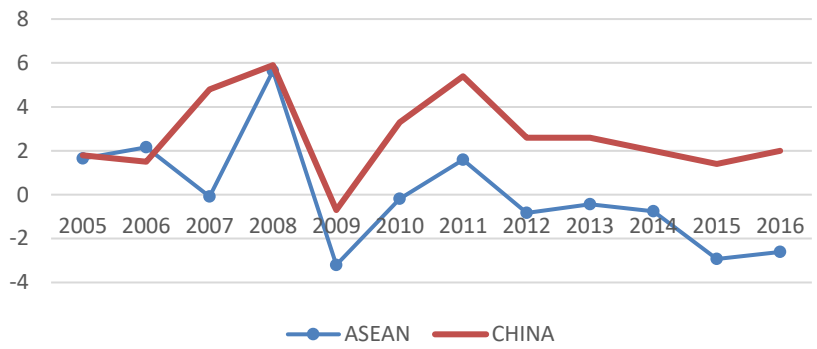
Another explanation of the business cycle synchronization between ASEAN and China is related to the performance of the Japanese economy. The quantitative easing policy of the Bank of Japan, through its record US$665 billion annual asset-buying scheme has had an only limited impact on output on growth and inflation. Japan has suffered as exports to key trading partner China slumped. Japan's consumption was also sluggish as a result of an increase in sales tax in 2014. The deterioration in the global economic outlook, including developments in China, would delay Japanese companies in expanding business investment and raising wages. If the Japanese economy is still in recession and deflationary mode, the demand for Japanese exports from China will also decline, implying a reduction in imported parts and components from ASEAN countries.

The synchronized business cycle is related to credit cycles and exchange rates. Mohan and Nandwa (2009) find evidence of cointegration among the ASEAN interest rates and the direction of these interest rates is affected by China's. This evidence points into the linkage between ASEAN-5 and China. The synchronization can also be explained by the exchange rate channel. ASEAN countries tend to avoid currency appreciation when the dollar trended downward. China even tries to peg the yuan with the dollar. Thus, trade between ASEAN and China can be conducted within an environment of stable exchange rates. Tang (2014) shows that, because of the region's production networks, increasing intraregional exchange rate volatility among Asian economies leads to a decline in intraregional trade, in particular among ASEAN economies. Intraregional trade within ASEAN amounted to only 24%, compared to 69% among the European Community Ong and Habibullah (2012) find evidence of a continuous macroeconomic interdependence between ASEAN-5 and China, which would lead to a successful ASEAN-China economic cooperation.

The macroeconomic interdependence between ASEAN and China can be demonstrated by examing the co-movements of price levels in the two regions. Employing the principal component of ASEAN inflations rate in 10-member countries, we can obtain the proxy of inflation cycles, shown in Figure 10. With compared with China's, it is apparent price stability between China and ASEAN is related. The long-run relationship between China and ASEAN exist, with the causal relationship running from China's inflation to ASEAN's. The long-run relationship is confirmed by Johansen cointegration test. The hypothesis that China's inflation rate does not Granger cause the inflation cycle in ASEAN is rejected at a statistically significant level. The global food crisis

in 2008 led China to ban exports of rice and sent panic to Asia. Inflation rate temporary skyrocketed because of food inflation, followed by export collapse caused by the GFC.

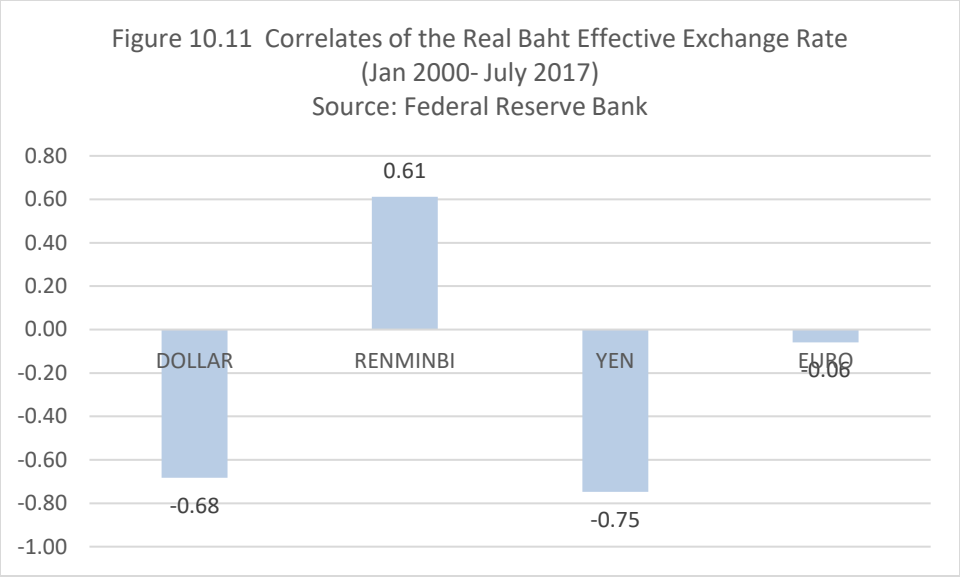
Figure 10.10 China and Asean Inflation Synchronizaton
(Principal Component Analysis of CPI)
Source: ADB Key Indicators



Tham and Kam (2014) employ a gravity model which captures the effects of trade in parts and components as well as final manufactured goods from ASEAN to China. Devadason (2009) also finds evidence that China's integration in the ASEAN region increases the size of ASEAN export market, rather than reducing ASEAN's export expansion. His result is in line with the fact that, although China has become an important export destination and an import source for individual ASEAN 5 countries, there is no reduction in intra-ASEAN 5 trade. From the literature, we can conclude that trade seems to be the most crucial channel explaining the synchronization between China and ASEAN business cycle.

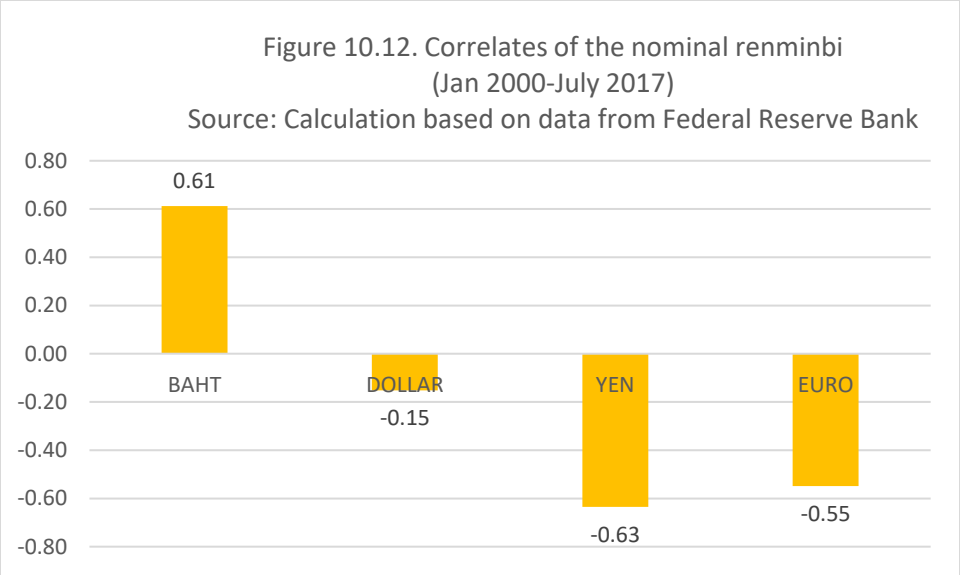
5. China's influence on baht exchange rates

Since correlations do not guarantee causation, we investigate further whether the baht REER is affected by the major world currencies. Using a dynamic least squares with a double-log model based on monthly data from January 2000 to July 2017, the estimated elasticity of the real effective exchange rate (REER) of the baht with respective to the REER of the dollar and the yen was -0.44 and -0.21 respectively. The model explains around 82 % of the variations of the baht REER. All estimated coefficients are statistically significant at 1 percent confidence level.



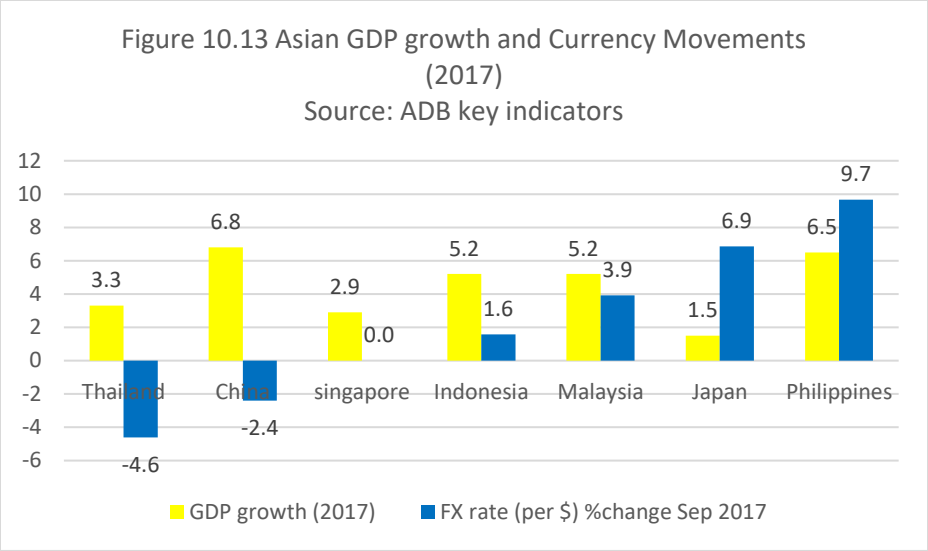
The result indicates that the movement of the baht exchange rate competitiveness is inversely related to that of the dollar and the yen. The impact of changes in the dollar REER is twice as significant as the yen. The baht gains competitiveness when the dollar and the yen lose its strength.

On the other hand, the estimated coefficient of the baht REER is 0.25 with respect to the REER of the renminbi. Thus the competitiveness of the baht follows that of the renminbi. The impact is more or less similar to the yen but of the opposite direction. It can be concluded that the course of the baht is in line with the renminbi, as can be seen in Figure 12, showing a highly positive correlation (0.61) between the between the baht and the renminbi REERs. The renminbi REER moves in the opposite direction with the major world currencies, while the baht REER exchange rate move together in line with the Renminbi.



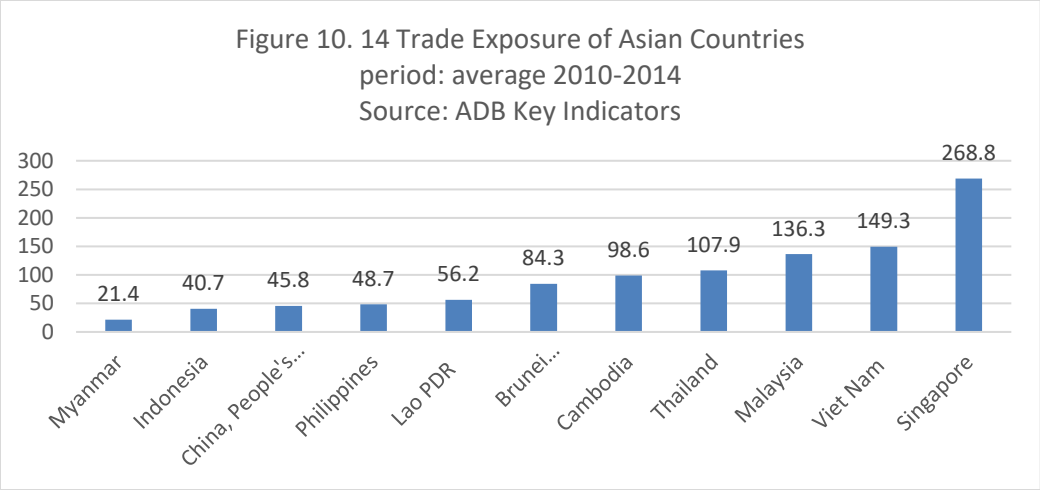
To conclude, China's exchange rate policy has an impact on the movement of the baht. China has a substantial influence on the Thai economy, not just through income effect, but also on the substitution effect via exchange rate movements.

Hooy et al. (2015) find that the yuan real exchange rate has a significant positive impact on ASEAN's total exports to China. Parts and components exports are sensitive to the yuan depreciation, because of the recent production relocations of MNCs in the ASEAN region to China and Vietnam. The substantial capital inflows after the QE operations prompted the ASEAN central banks to buy dollars and accumulate international reserves to prevent currency appreciations. By 2015, the dollar has gained strength as the US economy rebounded and the anticipation of the Fed's interest rate hike led to fear of capital outflows from the ASEAN region.



Since China surprised world markets by the devaluation of the yuan by 2 % in August 2015, net capital outflows have reached $200 billion. The People Bank of China is reported to have spent $229 billion in foreign exchange intervention to prop up the yuan in the third quarter of 2015. There has been speculation that the Fed interest rate hike is imminent as the US economy has been approaching the full employment level in the last quarter of 2015. While the economic recovery in the Eurozone is still protracted and fragile, due to a decline from Chinese imports, the European Central Bank (ECB) would still maintain the easy monetary policy. As a result, the gap between the interest rates in the US and the Eurozone will be widened in 2016. The dollar may continue appreciation. Because of the yuan peg with the dollar, there would be speculation of another round of yuan devaluation. In the future, we would observe a similar pattern of Asian currency depreciation as shown in Figure 13. As it turns out, the renminbi and the baht appreciated against the dollar, while other ASEAN currencies, except the Singapore dollar, depreciated against the dollar. Indonesian rupiah depreciated by 1.6 %, the ringgit 3.9%, yen 6.9, and the peso by 9.7 % respectively. Note that, except for Japan, these economies grew faster than Thailand in 2017. The conclusion is once again, movement of the baht follows China's exchange rate.

Trade exposure to external shocks can be measured by the value of total trade volume relative to GDP. In general, the ratio can be thought of as a measure of the degree of openness, reflecting trade liberalization over time. The increasing trend of trade openness also implies increasing risk exposure to external shocks such as terms of trade and volume of trade shocks. Small countries tend to have higher trade volume relative to GDP, while large countries with large domestic markets would tend to have lower trade exposure to trade shocks from the rest of the world. The high trade exposure ratio bodes well for the degree of trade integration, which can serve as an economic growth driver.



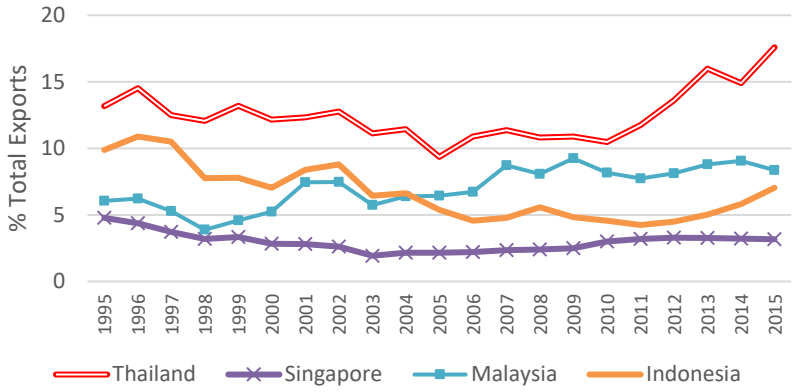
China's new normal growth implies that ASEAN economies' expansion would slow down. China's slowdown has reverberated around the world. Some ASEAN economies would not be affected unless public investment can be implemented effectively to induce growth via enhancing the effect of public infrastructure, which can lead to crowding in effect on private and consumption expenditures. ASEAN countries are seemingly homogenous, yet each country has heterogeneity in trade exposure, export markets and export products concentration. When China's growth declines, it would adversely affect countries with large trade exposure and more China's export dependency than countries with less trade exposure and reliance on imports from China.

The adverse impact of China's slowdown would be less felt in CLMV countries. In particular, developing rapid transportation network in the region can compensate the declining volume of trade with China by increasing trade among ASEAN countries, which would be enhanced by reduced transportation costs. Also, FDI outflows from ASEAN-5 into CLMV can offset declining export demand from China. Indonesia and the Philippines would be the least to suffer from China's slowdown. Market size and age structure of the population can ensure dynamism in investment and consumption expenditures. Thailand would be the laggard in the region unless a democratic government can be restored. Authoritarian rules reflect extractive institutions which create risks and uncertainty can drive out investment and lower long-term growth. In the scenario of a global growth slowdown, currency depreciation, and rising interest rates, the primary challenge will be household and business sector debts that would eventually impair the quality of bank loans and prolong economic recovery. The road to economic recovery will be hard unless ASEAN community can increase their intra-regional trade by improving regional connectedness through massive infrastructure investment to compensate the declining China's demand for exports.

6. China and Thailand's Tourism Industry

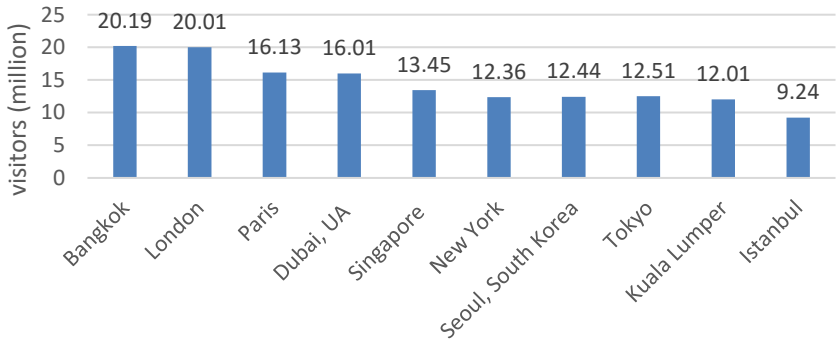
During the time of Thailand's dismal exports growth between 2015 and 2017, Thailand's receipts from international tourists, which were dominated by Chinese tourists. In 2010, tourism receipts amounted to 10 % of merchandise exports. In 2015, earning from the global tourism industry increased to 18 %. It can be said that Thailand's ability to avoid recession is partly due to the strength of the tourism industry. Figure 15 shows that more than other ASEAN countries, the tourism industry is the most competitive in the region.

Figure 10.15 Receipts from International Tourism
Source: ADB Key Indicators



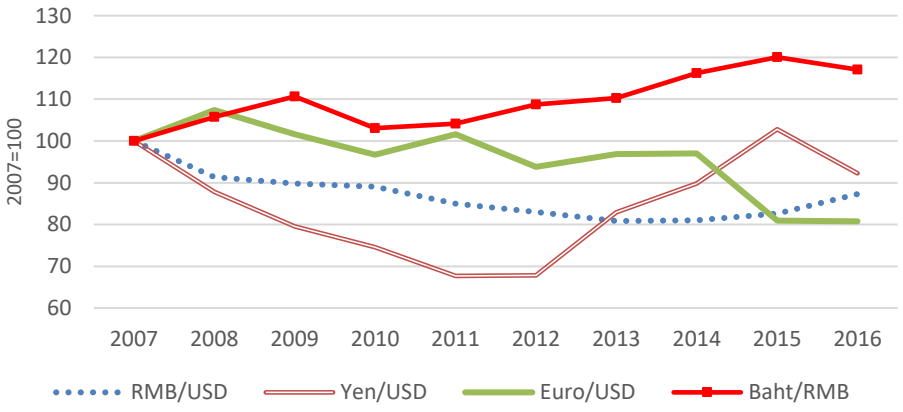
As can be seen from Figure 10.16, Bangkok has the highest rank among the world top destination cities in 2017. There are many reasons why Bangkok attracted 20 million visitors in 2017, more than London and Paris. Cultural capital, the perception of safety, and geographical locations are among the factors contributing to the competitiveness of Thailand's tourism industry. But one of the most critical factors that determine the attractiveness of tourists is the cost factor. Closer distance to China means that Chinese tourists who are cost conscious in deciding holiday destinations chose to come to Thailand. Lower transportation costs make Thailand more affordable for Chinese tourists.

Figure 10.16 World's Top 10 Destination Cities in 2017
Source: Mastercard's 2017 Global Destnation Cities Index



The strengthening of the renminbi against the Thai baht makes a holiday in Thailand cheaper than taking a holiday in Europe or Japan. Figure 10.17 shows that the renminbi appreciated by 20 % against the baht between 2007 and 2015, while the renminbi also depreciated against the dollar by 20%. At the same corresponding period, the yen and the euro appreciated against the dollar, causing Chinese's holiday in Europe and Japan more expensive further.

Figure 10.17 Baht Depreciation against the RMB attracts Chinese tourists
Source: Federal Reserve Bank



It is evident from figure 10.18 that Thailand's market share of Chinese tourists increased considerably from just 2 % in 2007 to 5 % in 2015. Moreover, the average spending of Chinese tourists in Thailand was the highest among international visitors.

Figure 10.18 Exchange Rate Matters for Chinese Tourists
Source: Federal Reserve Bank

The rapidly rising number of Chinses tourists is evident after the GFC in 2009. Only in 2014 did the trend of Chinese visitors remained flat. The impact of political unrest that culminated into the military coup in 2014 took it high toll on the tourism industry in 2014. By 2015, the recovery was underway. The number of Chinese tourists surpassed ASEAN visitors, thanks to the improvement of the Chinese economy. The exponential growth path of the Chinese tourists offsets the tourism revenue shortfalls from Europe and Japan.

There is a strong correlation (0.85) between the baht-renminbi exchange rate and the number of Chinese visitors to Thailand. On the contrary to the yuan, the baht-euro and baht-yen are negatively correlated with the number of European and Japanese visitors to Thailand, -0.78 and -0.45 respectively. The exchange rate is a factor contributing to the rising number of Chinese tourists in Thailand, but not for European and Japanese tourists. The Chinese tourists are more concerned about the cost of their holidays, which other tourists considered other factors such as safety and cultural capital offered by Thailand.

7. Concluding remarks

China's slowdown has reduced Thailand's fiscal space; thereby impairing the government's ability to use fiscal policy to counteract the downturn economic cycles. When the Fed starts normalizing monetary policy, an increase in interest rates will raise household debts in emerging economies. Rapid increases in household debts to GDP have made it difficult for Thai monetary authorities to implement effective monetary policy to stimulate the economy after export collapses. Poverty and indebtedness have been a significant problem for Thai farmers since the collapse of primary commodity prices. As long as commodity prices remain weak, the inclusive development goals of

poverty eradication and improved income distribution will be a challenge. China's slowdown has a far-reaching impact on Thailand's inclusive growth.

By 2018, the world economy was in better conditions, buoyed by a synchronized acceleration in the US, Europe, and Asia. Exports from Thailand grew 11.3 % (year-on-year) in the first quarter of 2018, while imports increased by16.2 %. It was the fastest increase in exports in more than five years, due to the robust global demand. When China growth resumed in the third quarter of 2017, Thailand's exports rebounded, thanks to improved shipment orders and favorable commodity prices. Unless China maintains growth momentum, the Thai economy would still be growing below its potential output level.

References

Athukorala, Prema Chandra, and Hal Hill. "Asian trade: long-term patterns and key policy issues." Asian-Pacific Economic Literature 24.2 (2010): 52-82.

Cashin, Paul, Kamiar Mohaddes, and Mehdi Raissi. 2017. "China's slowdown and global financial market volatility: Is world growth losing out?" Emerging Markets Review 31: 164-175.

Devadason, Evelyn S. 2011. "Reorganization of Intra-ASEAN 5 Trade Flows: The 'China Factor.'" *Asian Economic Journal* 25, no. 2: 129-149.

Eichengreen, Barry, Donghyun Park, and Kwanho Shin. 2012. "When Fast-Growing Economies Slow Down: International Evidence and Implications for China∗." Asian Economic Papers 11.1: 42-87

Hill, Hal, and Maria Socorro Gochoco-Bautista. 2013. "Perspectives and Issues." In Asia Rising: Growth and Resilience in an Uncertain Global Economy, edited by Hal Hill and Maria Socorro Gochoco-Bautista, 3-45. Cheltenham, U.K., and Northampton, Mass.: Elgar; Manila: Asian Development Bank.

Hooy, Chee-Wooi, Law Siong-Hook, and Chan Tze-Haw. 2015. "The Impact of the Renminbi Real Exchange Rate on ASEAN Disaggregated Exports to China." Economic Modelling 47, 253-259

Ishaq, Maryam, and Muhammad Atiq Ur Rehman. 2013. "Surmounting the Individual: Establishing a Common Currency in Asia--A Case Study of East Asian Economies. Global Economy Journal. 13, no.1, 63-88.

Masron, Tajul Ariffin, and Eliza Nor. 2013. "FDI in ASEAN-8: Does Institutional Quality Matter?" *Applied Economics Letters* 20, no. 1-3: 186-189.

Mohan, Ramesh, and Boaz Nandwa. 2009. "Examining Interest Rate Linkages among ASEAN-5, China and India." *ASEAN Economic Bulletin* 26, no. 2: 174-179.

Napoli, Christopher. 2014. "China's Economic Rise: Implications for ASEAN Trade Flows." *Journal of Southeast Asian Economies* 31, no. 3: 345-360.

Ong, Hway-Boon, and Muzafar Shah Habibullah. 2012. "Is China Compatible with ASEAN-5? A Gradual Cointegration Analysis." *Journal of Economic Studies* 39, no. 3-4: 356-367.

Tang, Hsiao Chink. 2014. "Exchange Rate Volatility and Intra-Asia Trade: Evidence by Type of Goods." *World Economy* 37, no. 2: 335-352.

Tham, Siew Yean, and Andrew Jia Yi Kam. 2014. "Re-examining the Impact of ACFTA on ASEAN's Exports of Manufactured Goods to China." *Asian Economic Papers* 13, no. 3: 63-82.

Teng, Kee Tuan, Siew Hwa Yen, and Soo Y. Chua. 2013. "The Synchronization of ASEAN-5 Stock Markets with the Growth Rate Cycles of Selected Emerging and Developed Economies." *The Journal of Applied Economic Research* 7, no. 1: 1-28.

[i] China's Shanghai Composite index rose by 150 % (year-on-year) between June 2015. The sharp fall in August 2015 represented a 40 % fall from the June peak.